REMARKS

Double Patenting Rejection:

Applicant acknowledges the Examiner's finding that the double patenting rejection has been overcome.

35 USC §112:

The Examiner rejects claims 31 and 32 under 35 USC 112, second paragraph for being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 31 and 32 have been canceled making the objections to these claims moot.

35 USC §103:

The Examiner states that claims 1-9, 15, and 31-32 are rejected under 35 USC 103 (a) as being unpatentable over JP 01170641 in view of Moss (US 4, 698,372) and Suzuki (U.S. 4, 158, 450). Applicant respectfully disagrees.

Claim 1 has been amended such that the composition comprises "at least 95% mol-% of oxymethylene repeat units" rather than "80 mol-%". Support for this amendment is found on page 6, lines 11-13. Claims 31 and 32 have been canceled making the objections to these claims moot Applicants contend that the combination of the prior art does not disclose the present invention.

As the Examiner states on page 3, the last sentence, JP 01170641 does not disclose the "(a) aspect ratio of calcium carbonate filler and (b) volume % filler" which is claimed in the present invention Additionally, JP 01170641 discloses an average filler particle size of 100μm or less. In the present invention, the claimed range of the average filler size is "0.1 to less than about 3.5 μm" because only a certain range of the average filler size provides the impact resistance of the present invention. This is demonstrated by Table 13 of Applicant's invention. An average filler size of 0.07 μm (which falls under the range of JP 01170641) does not provide the desired Izod impact resistance that is shown by 0.7 μm (which falls in the range of the present invention). Hence, the narrow disclosure by the present invention is patentably distinguishable from the range of JP 01170641.

Applicant's invention differs from that of Moss in that Moss in claim 1 discloses a low flexural modulus of less than 200 MPa. Moss is limited to the use of a polymer, which in the unfilled state exhibits a ***low*** flexural modulus of less than 200 MPa (i.e. soft film applications). Thus, the invention of Moss is to a film that lacks stiffness. In contrast,

Applicant's invention provides a polymer, which in the unfilled state exhibits a ***substantially*** higher flexural modulus (i.e. greater than 1500 MPa) enabling use in totally different applications (i.e. stiff engineering polymers) than that of Moss. This ***substantially*** higher flexural modulus of the present invention is indicated to one of ordinary skill in the art by the "95 mol % of oxymethylene repeat units" of claim 1. Applicant encloses an affidavit from Jerry Moraczewski showing that the "95 mol % of oxymethylene repeat units" of claim 1 shows a high flexural modulus of at least 1500 MPa that is supported by his experimental results and extrapolation. (i.e. at higher mol percentages of oxymethylene repeat units, the flexural modulus of the material is greater than 1500 MPa) Thus, the present invention uses a polymer with a flexural modulus considerably above that of Moss.

Applicant contends that Suzuki references the use of a polyacetal resin with the trade name Duracon but does not disclose the remainder of the claimed invention in claim 1.

Applicant contends that there is no suggestion to combine the prior art indicated above and even when combined, the prior art does not make Applicant's invention obvious to one of ordinary skill in the art because specific elements of the prior art lay outside of the Applicant's invention and thus, would not be expected to provide the surprising results (improved stiffness and toughness, see page 5, lines 22-24) of present invention. To reiterate, the aspect ratio of the calcium carbonate filler and volume % filler of the present invention are not disclosed in JP01170641, nor is the specific range of the present invention, which provides the surprising properties of the present composition. Moss discloses a "film" material having a ***low*** flexural modulus (less than 200 MPa) whereas the range of the present invention has a ***considerably higher*** flexural modulus (at least 1500 MPa, supported by the attached Affidavit) making it significantly stiffer then that of Moss. And, as mentioned previously, Suzuki references the use of a polyacetal resin but otherwise does not disclose the composition of the present invention. Thus, Applicants contend that the present invention is patentably distinguishable over the prior art. Reconsideration and allowance is respectfully requested.

No extension fee is believed due under 37 CFR § 1.136 in order to obtain consideration for this response.. However, should a fee be required, please charge that fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company.)

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,

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Enclosure: Jerry Moraczewski Affidavit
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